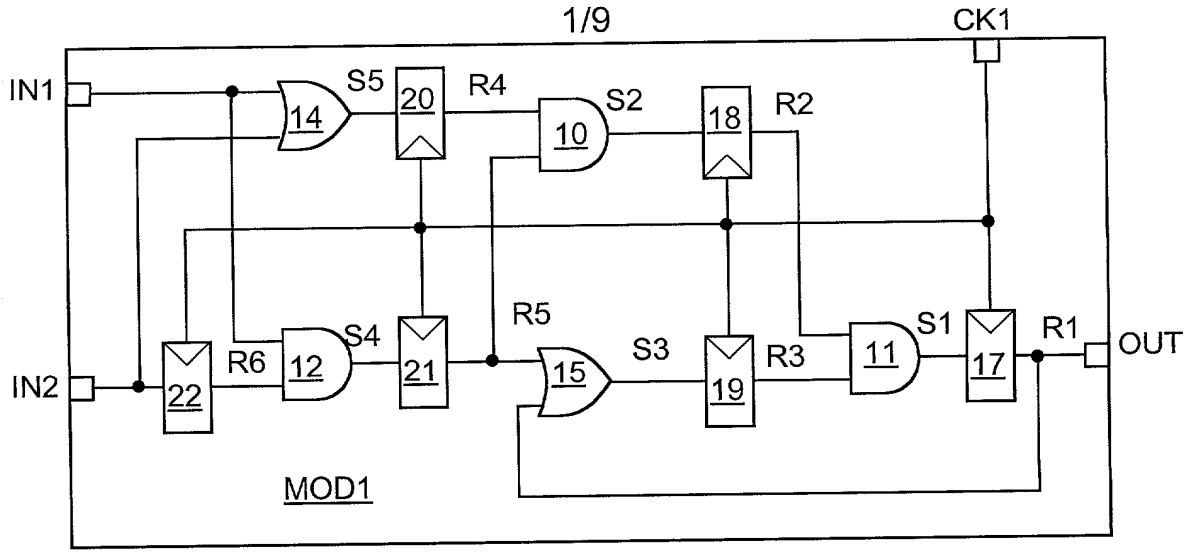

FIG. 1
(PRIOR ART)

```
module MOD1 (CK1,IN1,IN2,OUT);
        input [width-1:0] CK1;
        input [width-1:0] IN1,IN2;
        output [width-1:0] OUT
        wire [width-1:0]S1,S2,S3,S4,S5
        Reg[width-1:0] R1,R2,R3,R4,R5,R6;
        always @posedge(CK1)
                R1  = S1;
                S1  = R2 & R3;
                R2  = S2;
                S2  = R4 & S5;
                R3  = S3;
                S3  = R1| R5;
                R4  = S5;
                S4  = IN1 & R6;
                S5  = IN1 | IN2;
                R5  = S4;
                R6  = IN2;
        assign OUT = R1;
endmodule
```

FIG. 2
(PRIOR ART)

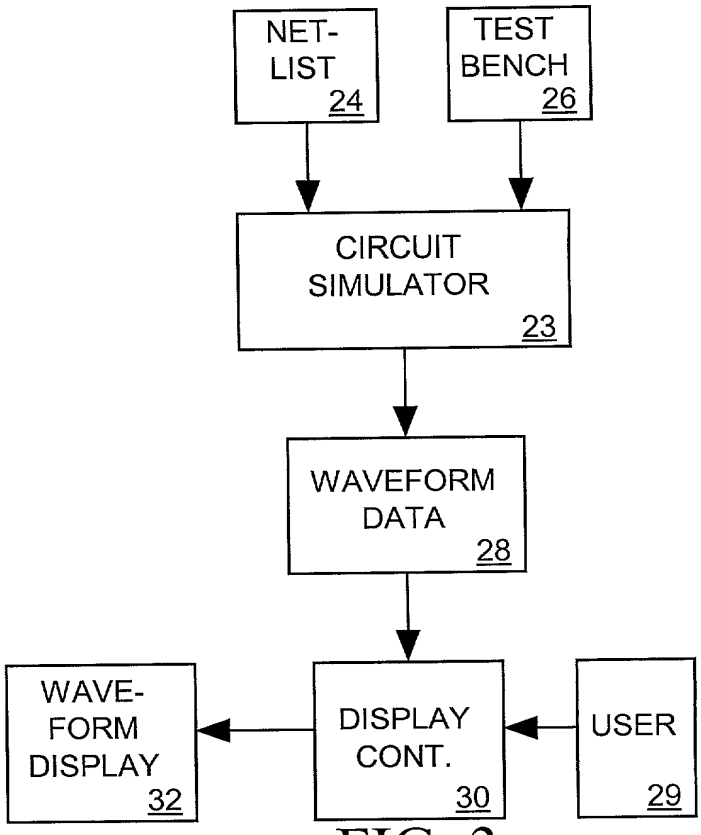

FIG. 3
(PRIOR ART)

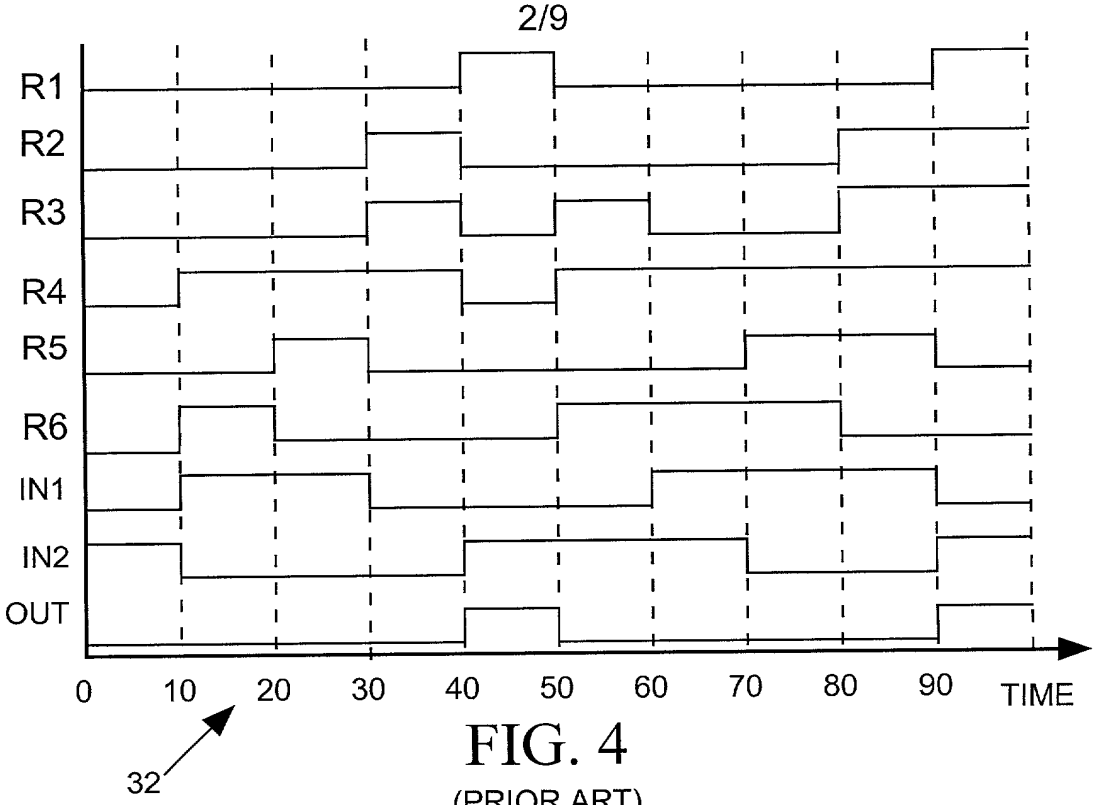

FIG. 4
(PRIOR ART)

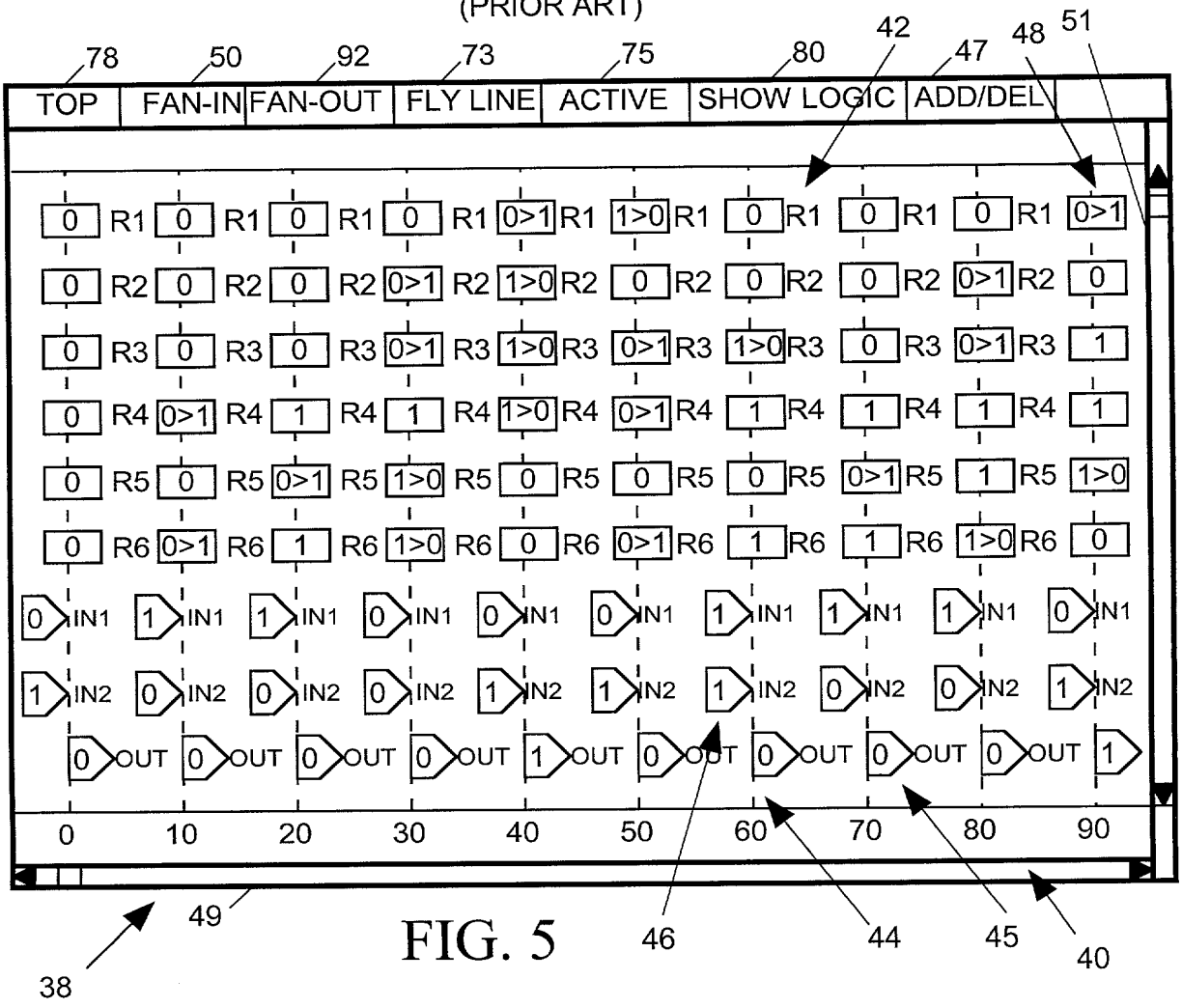

FIG. 5

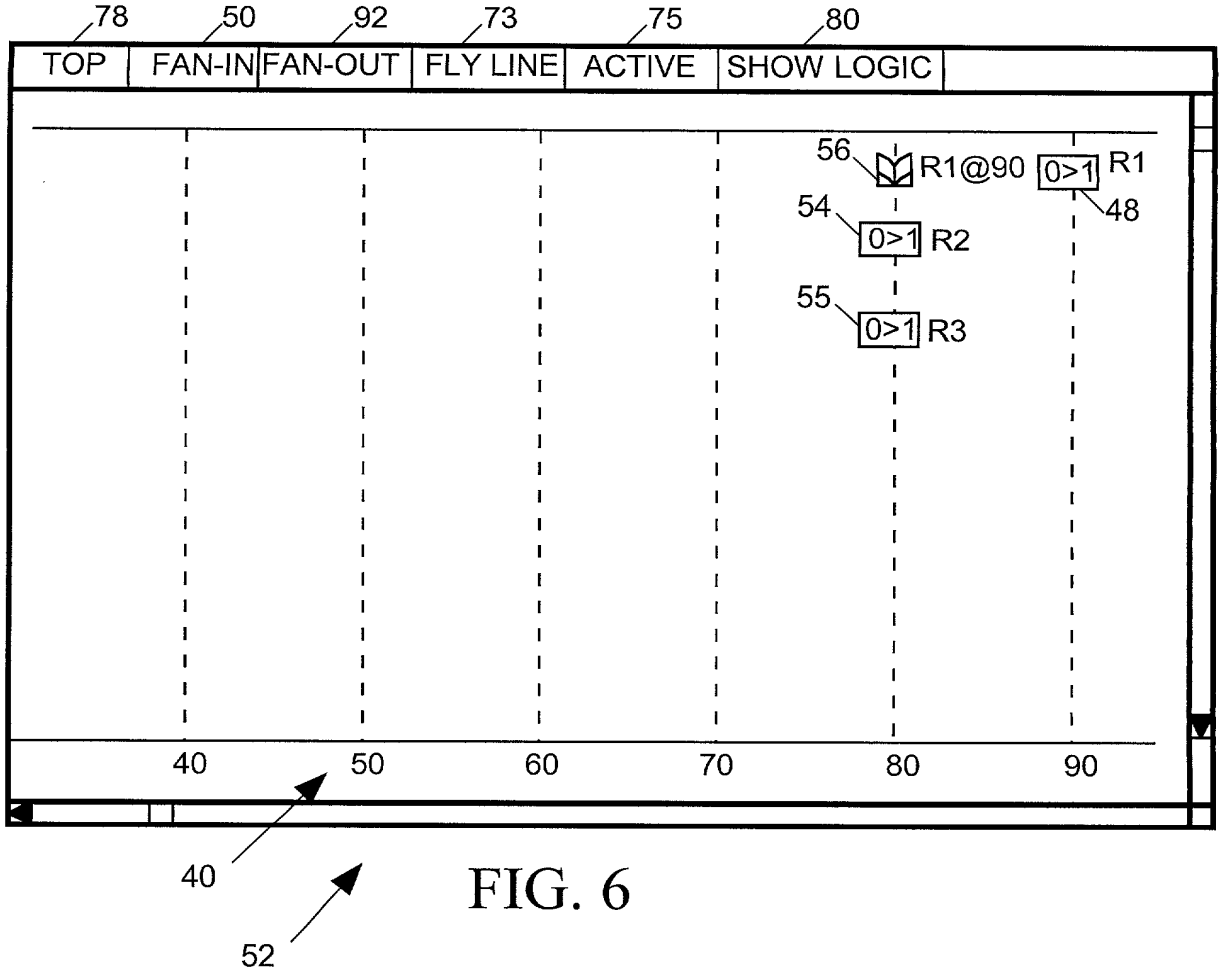

FIG. 6

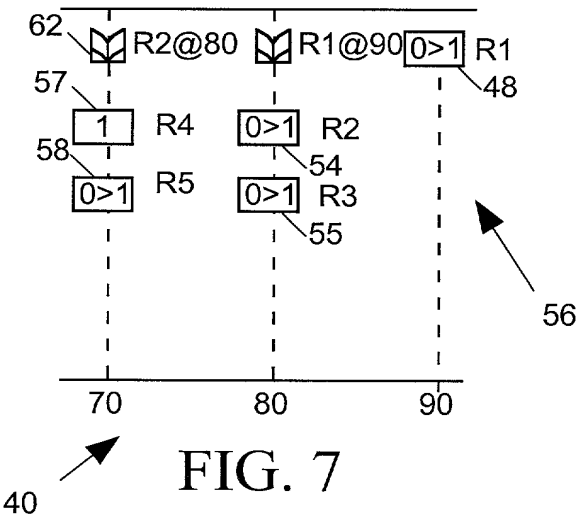

FIG. 7

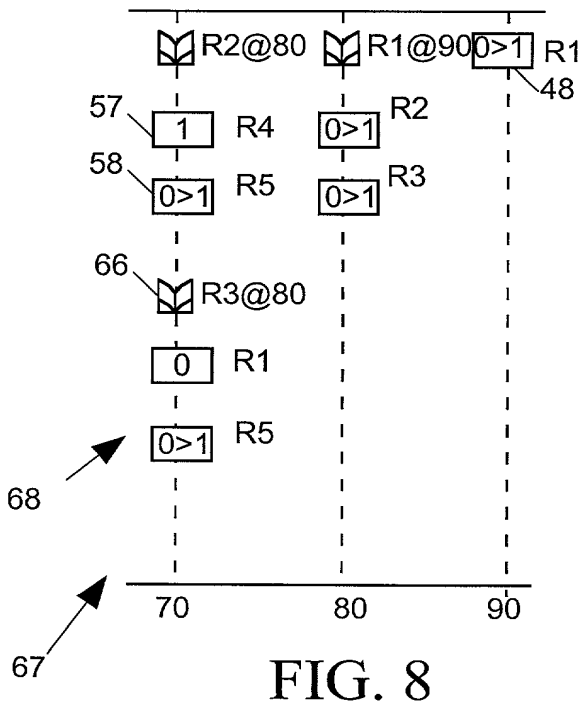

FIG. 8

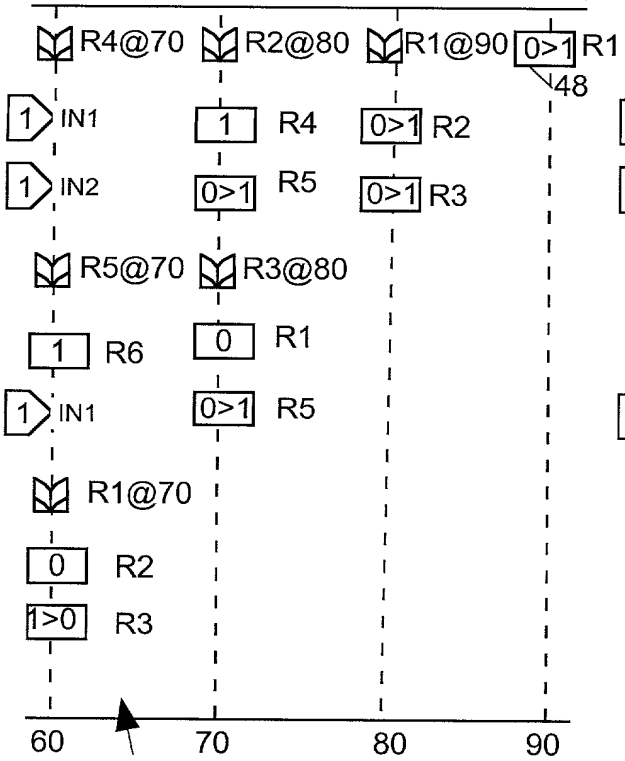

FIG. 9

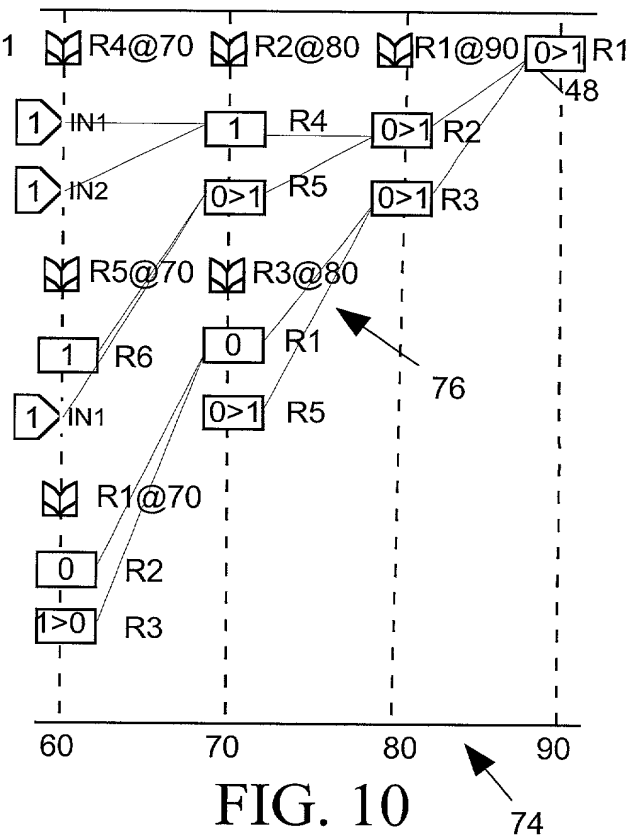

FIG. 10

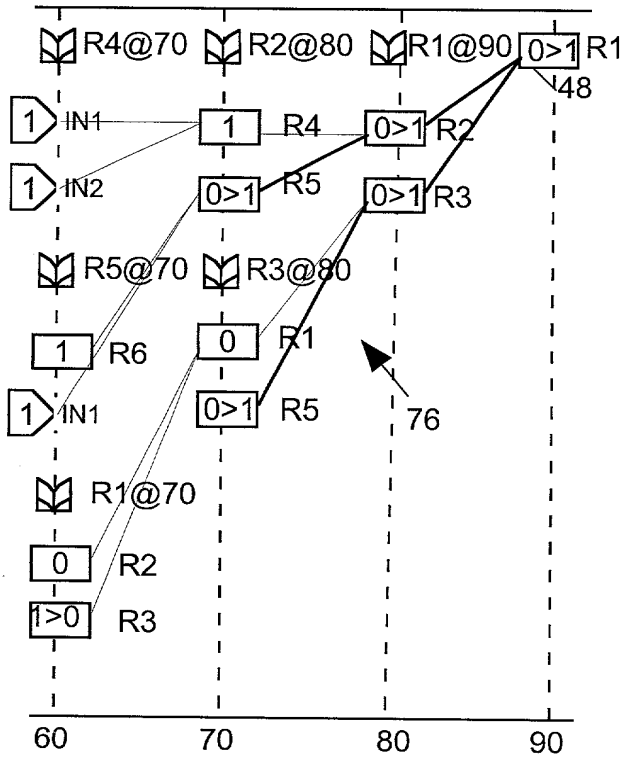

FIG. 11

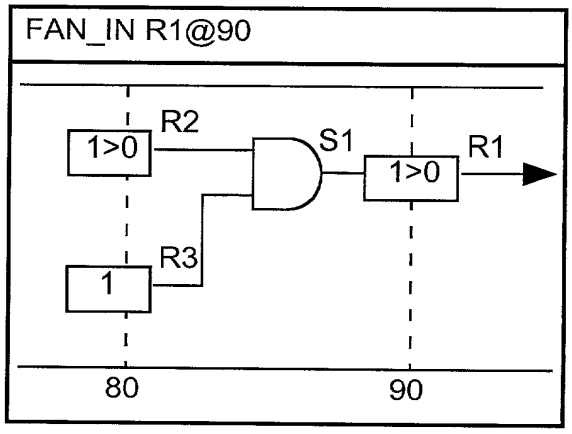

FIG. 12

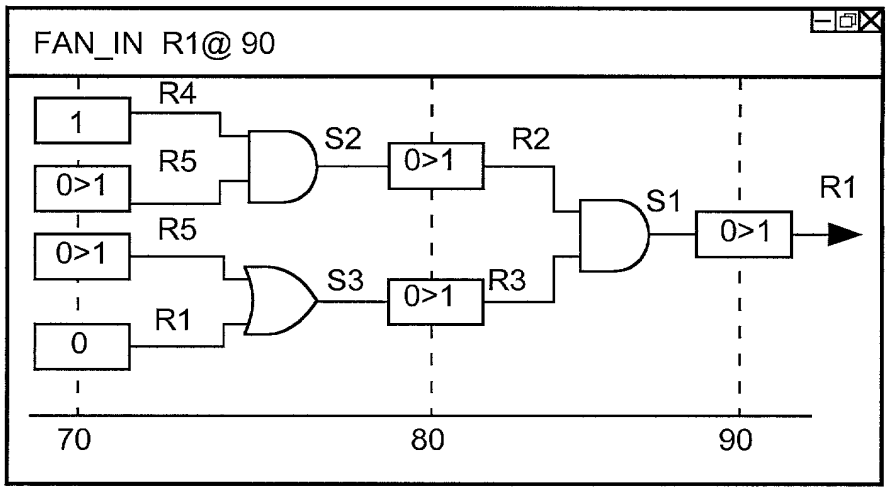

FIG. 13

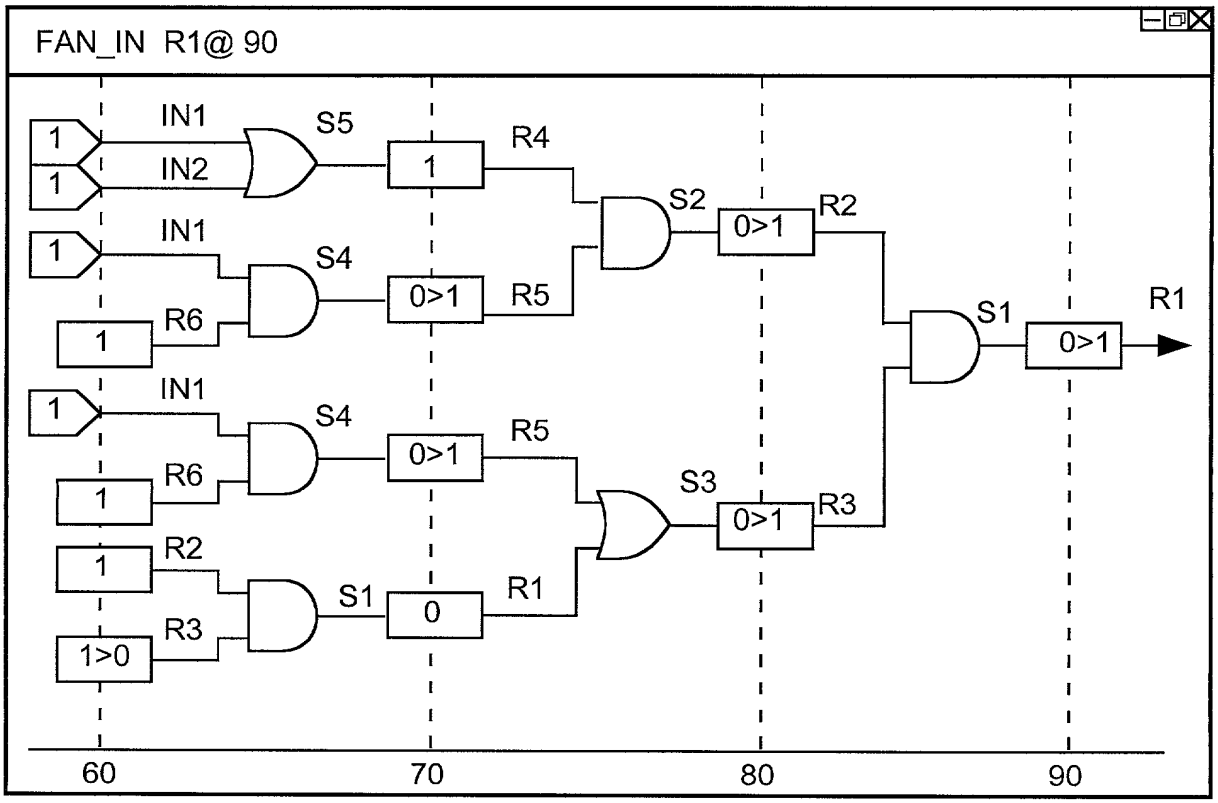

FIG. 14

90

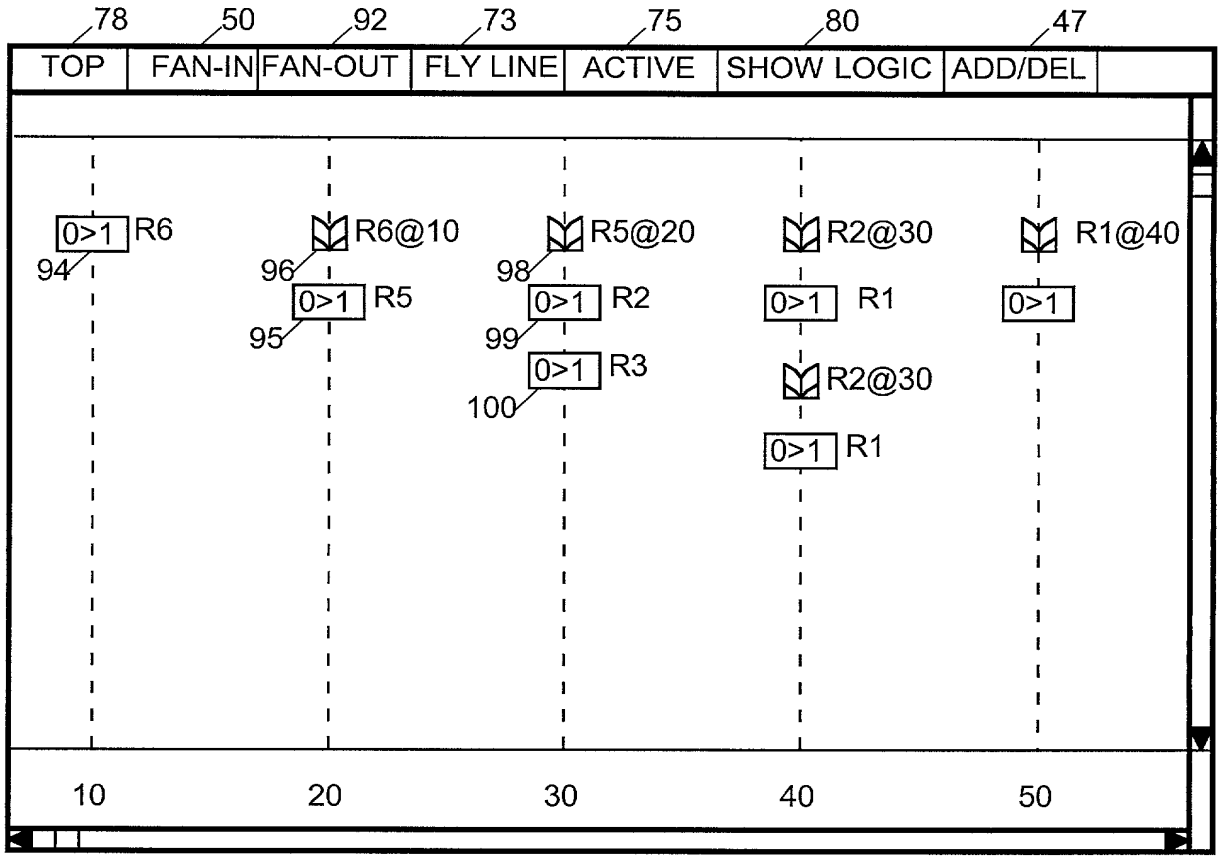
78
50
92
73
75
80
47
TOP
FAN-IN
FAN-OUT
FLY LINE
ACTIVE
SHOW LOGIC
ADD/DEL
0>1 R6
94
R6@10
96
0>1 R5
95
R5@20
98
0>1 R2
99
0>1 R3
100
R2@30
0>1 R1
R2@30
0>1 R1
0>1
R1@40
10
20
30
40
50

FIG. 15

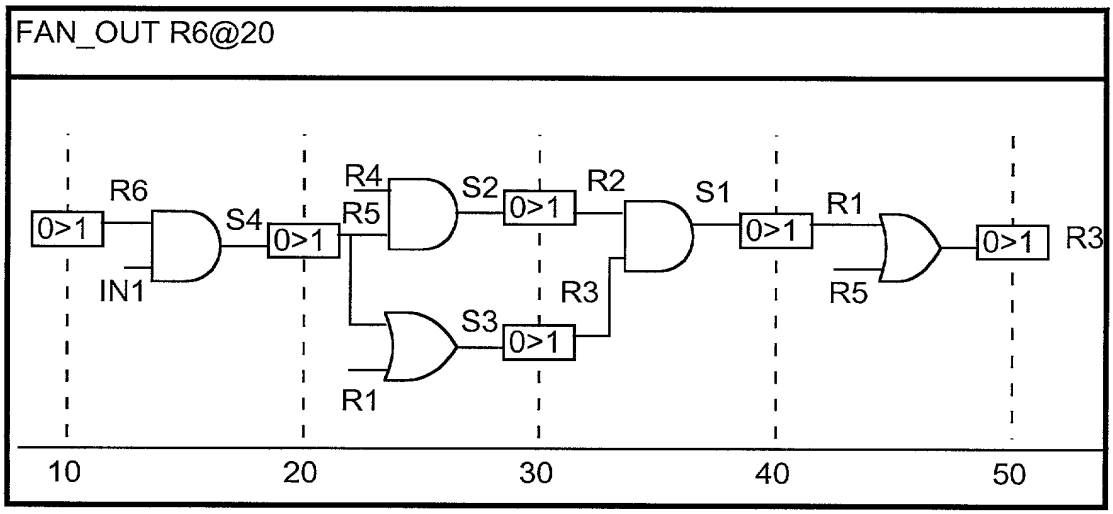
FAN_OUT R6@20
R6
0>1
IN1
S4
0>1
R4
R5
S2
0>1
R2
R1
S3
0>1
R3
S1
0>1
R1
R5
0>1
R3
10
20
30
40
50

FIG. 16

```
module innet_R2(S2, R4,R5);
        input [width-1:0] R4,R5;
        wire [width-1:0]S2
                S2  = R4 & R5;
endmodule
```

FIG. 19

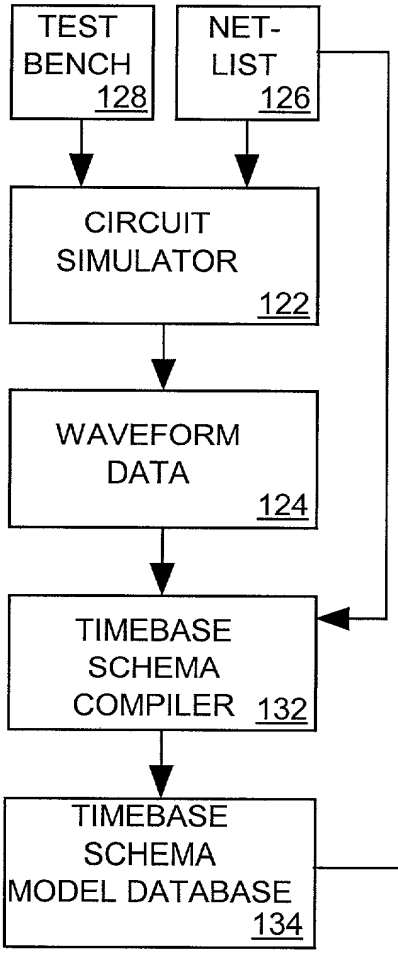

FIG. 20

R1: R3
R2: R1
R3: R1
R4: R2
R5: R2, R3
R6: R5

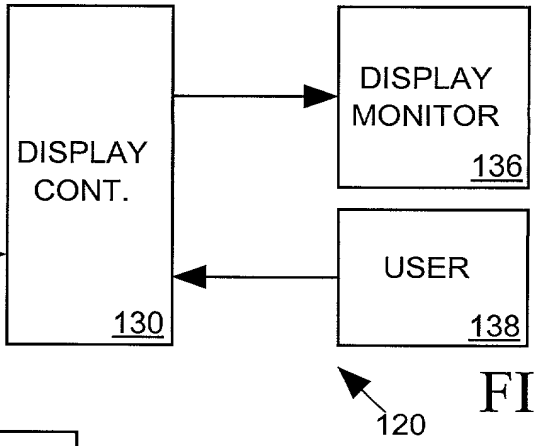

FIG. 17

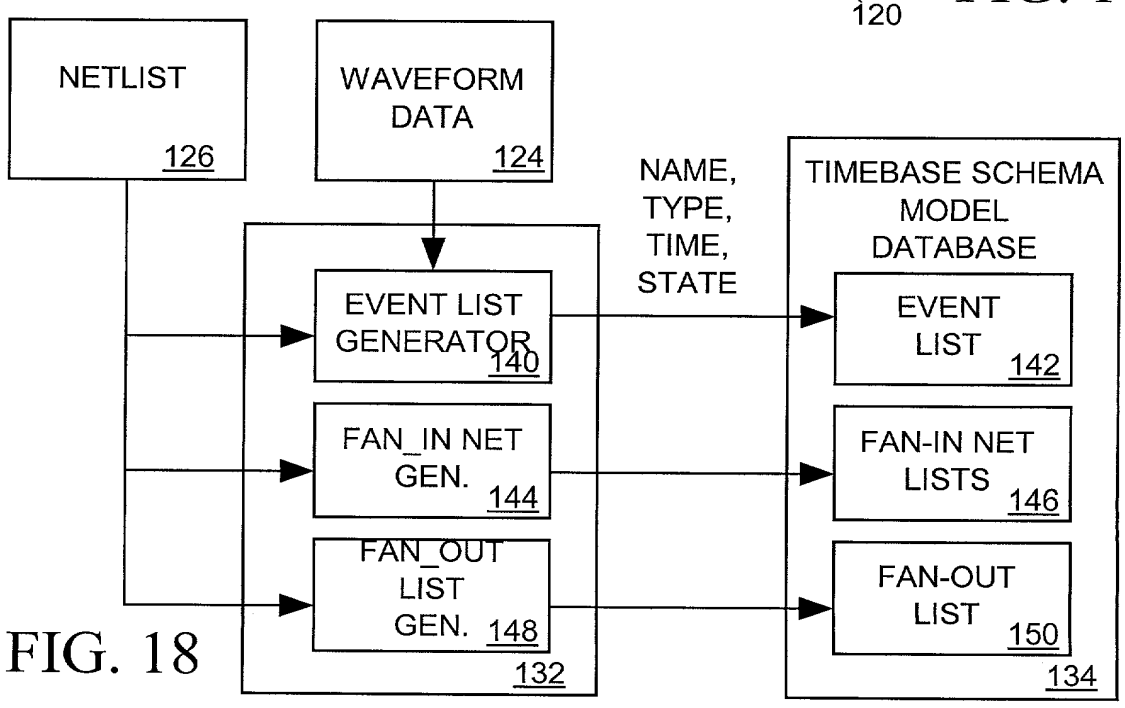

FIG. 18

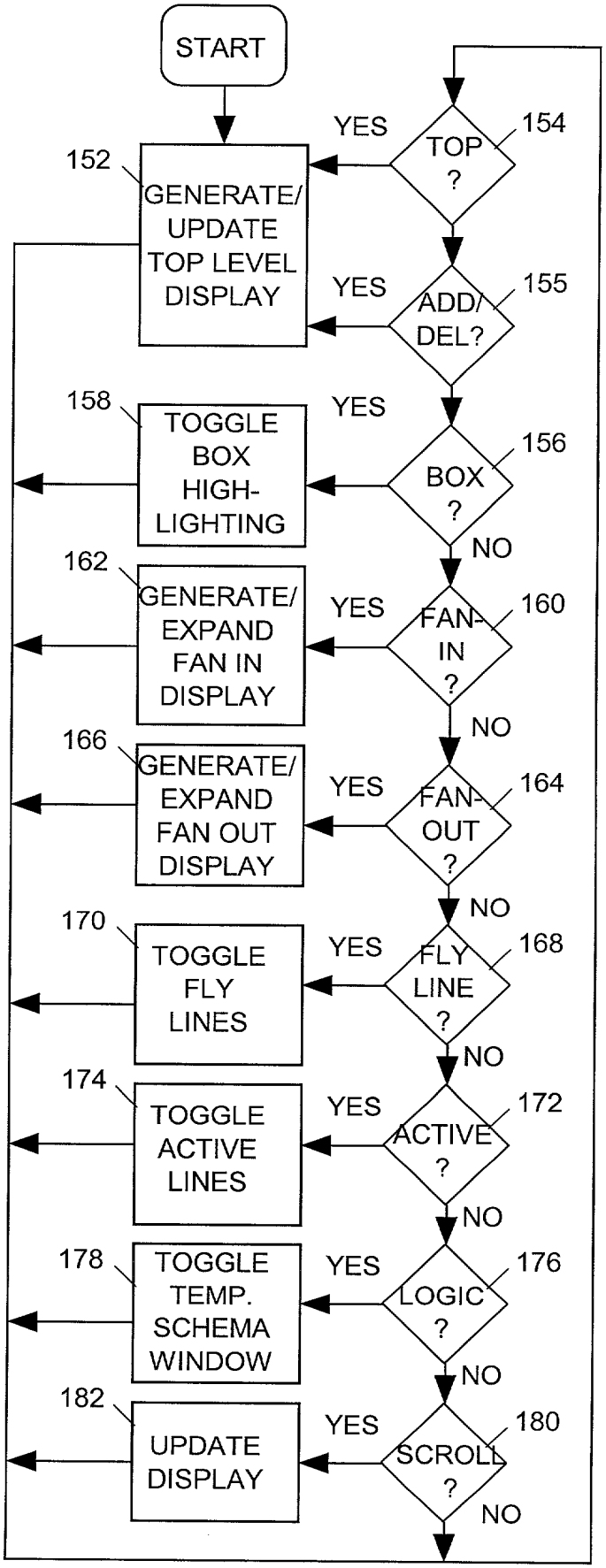
START
TOP ?
154
YES
152
GENERATE/ UPDATE TOP LEVEL DISPLAY
ADD/ DEL?
155
YES
158
TOGGLE BOX HIGH-LIGHTING
BOX ?
156
YES
NO
162
GENERATE/ EXPAND FAN IN DISPLAY
FAN-IN ?
160
YES
NO
166
GENERATE/ EXPAND FAN OUT DISPLAY
FAN-OUT ?
164
YES
NO
170
TOGGLE FLY LINES
FLY LINE ?
168
YES
NO
174
TOGGLE ACTIVE LINES
ACTIVE ?
172
YES
NO
178
TOGGLE TEMP. SCHEMA WINDOW
LOGIC ?
176
YES
NO
182
UPDATE DISPLAY
SCROLL ?
180
YES
NO

FIG. 21

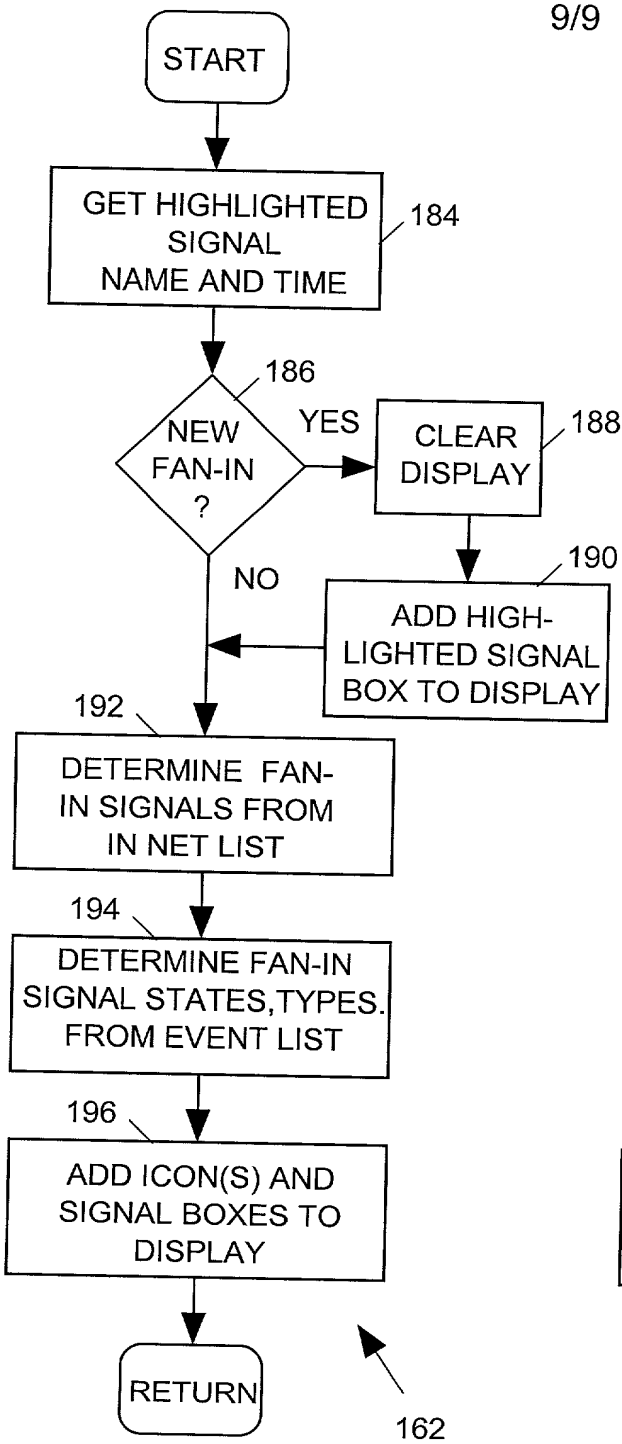
START
GET HIGHLIGHTED SIGNAL NAME AND TIME
184
186
NEW FAN-IN ?
YES
CLEAR DISPLAY
188
NO
190
ADD HIGH-LIGHTED SIGNAL BOX TO DISPLAY
192
DETERMINE FAN-IN SIGNALS FROM IN NET LIST
194
DETERMINE FAN-IN SIGNAL STATES,TYPES. FROM EVENT LIST
196
ADD ICON(S) AND SIGNAL BOXES TO DISPLAY
RETURN
162

FIG. 22

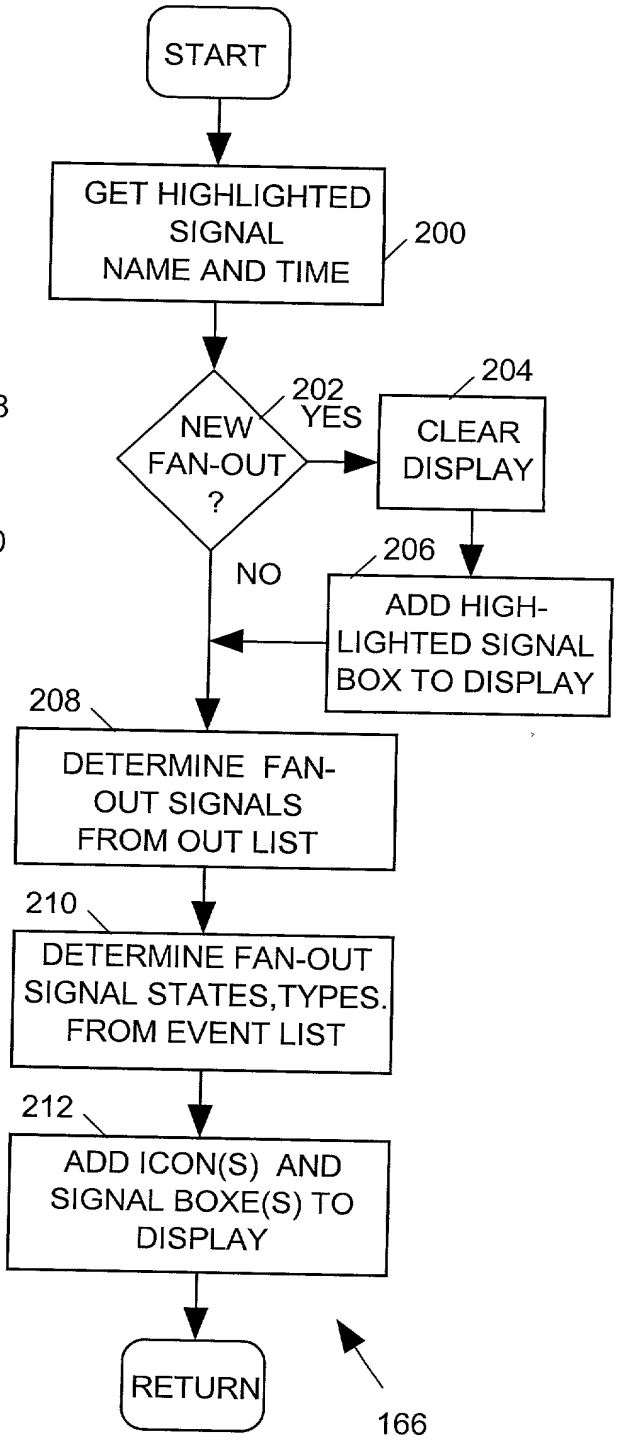
START
GET HIGHLIGHTED SIGNAL NAME AND TIME
200
202
NEW FAN-OUT ?
YES
204
CLEAR DISPLAY
NO
206
ADD HIGH-LIGHTED SIGNAL BOX TO DISPLAY
208
DETERMINE FAN-OUT SIGNALS FROM OUT LIST
210
DETERMINE FAN-OUT SIGNAL STATES,TYPES. FROM EVENT LIST
212
ADD ICON(S) AND SIGNAL BOXE(S) TO DISPLAY
RETURN
166

FIG. 23